

**To Study the Incidence of Uterine Fibroid in Gynaecological Patients****Aditi Rana**

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Conflict of interest: Nil

**Abstract:**

**Background & Methods:** The aim of the study is to study incidence of uterine fibroid in gynaecological patients. Most of the studies of fibroid have been based on care-seeking populations, including women undergoing myomectomy or hysterectomy. Among those tumors that come to clinical attention, only a portion of affected women progress to hysterectomy. The decision for surgical intervention primarily reflects the severity of a woman's symptoms (bleeding or pelvic pain) and her desire to maintain childbearing potential.

**Results:** Total 7% of cases had associated ovarian cyst. The chi-square statistic is 8.1593. The  $p$ -value is 0.016914. The result is significant at  $p < 0.05$ . Maximum (88%) had less than 2 fibroids. The chi-square statistic is 1.0297. The  $p$ -value is 0.031218. The result is significant at  $p < 0.05$ .

**Conclusion:** Epidemiologic studies on age at menarche in relation to uterine fibroid have shown an inverse association. The mean age was  $12.4 \pm 1.29$  and the median age was 12 years. On the basis of our current state of knowledge, we can only speculate upon the initiators of this common condition. Future research efforts may provide a better understanding, however, of the causes and mechanisms of uterine fibroid tumorigenesis. Insights resulting from elucidation of the basic biology of these tumors might then be successfully translated into preventative strategies that will reduce the incidence and/or morbidity of this disease.

**Keywords:** Incidence, uterine, fibroid & gynaecological.

**Study Design:** Prospective Observational Study.

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**Introduction**

Uterine fibroids are the most common pelvic tumors of women. Being a major cause of abnormal uterine bleeding they are the most commonly cited reason for hysterectomy [1]. They have a number of risk factors, signs and symptoms and a number of modalities for treatment. Methods of treating myomas vary based on location, size, and presenting symptoms.

Growth and location are the main factors that determine if a fibroid leads to symptoms and problems. A small lesion can be symptomatic if located within the uterine cavity while a large lesion on the outside of the uterus may go unnoticed [2].

Intramural Fibroids are located within the wall of the uterus and are the most common type; unless large, they may be asymptomatic. Intramural fibroids begin as small nodules in the muscular wall of the uterus [3]. With time, intramural fibroids may expand inwards, causing distortion and elongation of the uterine cavity.

Submucosal fibroids are located underneath the mucosal (peritoneal) surface of the uterus and can become very large. They can also grow out in a papillary manner to become pedunculated fibroids.

These pedunculated growths can actually detach from the uterus to become a parasitic fibroid [4]. Submucosal fibroids are located beneath the endometrium of the uterus and distort the uterine cavity; even small lesion in this location may lead to bleeding and infertility. A pedunculated lesion within the cavity is termed an intracavitary fibroid and can be passed through the cervix.

Cervical fibroids are located in the wall of the cervix (neck of the uterus). Rarely fibroids are found in the supporting structures of the uterus that also contain smooth muscle tissue [5].

**Material and Methods**

The study was conducted at Department of Obstetrics and Gynaecology, Sri Aurobindo Institute of Medical Sciences, Indore for 6 months and included 100 Women (all ages). The relevant population was a subset of women with treatment for fibroids. Patients selected were those diagnosed with uterine fibroid and had undergone surgical management. The criteria for diagnosis were either by USG findings or hysterectomy or confirmed by histopathological examination.

Most of the studies of fibroid have been based on care-seeking populations, including women

undergoing myomectomy or hysterectomy. Among those tumors that come to clinical attention, only a portion of affected women progress to hysterectomy. The decision for surgical intervention primarily reflects the severity of a woman's symptoms (bleeding or pelvic pain) and her desire to maintain childbearing potential. The diagnosis of fibroid is often suspected when an enlarged irregular uterine contour is palpable on pelvic examination. Ultrasound examination is the

primary non-invasive standard used to confirm diagnoses.

Only women with an intact uterus who were currently menstruating were eligible for analysis, leading to the exclusion of women who had previous hysterectomy or who had not menstruated in the previous year and who were pregnant or were lactating.

## Result

**Table 1: Age of Menarche (Years)**

Age of Menarche (years)	No. of Cases	Percentage
11	25	25%
12	33	33%
13	23	23%
14	11	11%
≥15	08	08%

Majority of the patients had an early age of menarche i.e. 11 years in 25% and 12 years in 33%

**Table 2: distribution of cases according to parity**

Parity	No. of Cases	Percentage
0	10	10%
1	07	07%
2	29	29%
3	23	23%
4	17	17%
≥5	14	14%

Maximum number of patients (29%) were para 2. The mean parity was  $2.7 \pm 1.64$

**Table 3: associated other gynaecological conditions**

Parameter	No. of cases	Percentage (%)	P Value
Ovarian cyst	07	07	.016914
Chronic cervicitis	04	04	
PID	04	04	
Adenomyosis	03	03	
Pelvic organ prolapse	02	02	
Endometriosis	01	01	

Total 7% of cases had associated ovarian cyst. The chi-square statistic is 8.1593. The *p*-value is .016914. The result is significant at  $p < .05$ .

**Table 4: distribution of cases according to no. Of fibroids**

No. of Fibroids	No. of Cases	Percentage	P Value
0-2	88	88%	.031218
3-4	07	7%	
5-6	01	1%	
>6	04	4%	

Maximum (88%) had less than 2 fibroids. The chi-square statistic is 1.0297. The *p*-value is .031218. The result is significant at  $p < .05$ .

## Discussion

Majority of the patients had an early age of menarche i.e. 11 years in 29% and 12 years in 30%. The mean age was  $12.4 \pm 1.29$  and the median age was 12 years [6]. The median age at menarche in the Black Women's Health Study participants was 12 years with range 11–13 years. Epidemiologic studies on age at menarche in relation to uterine fibroid have shown an inverse association [7]. The

association between UL risk and early menarche, which was also suggested by previous studies, bears two alternative explanations, and perhaps both are valid.

It has been suggested that early menarche is associated with higher estrogen levels throughout reproductive life, although direct evidence for this is lacking[7]. On the other hand, menarche at a younger age implies earlier establishment of

regular ovulation and thus more prolonged exposure to both estrogen and progesterone [8-10].

Out of total patients 11 were nulliparous and 5 were unmarried among them. Maximum number of patients (29%) were para 2. The mean parity was  $2.7 \pm 1.64$  ranging from para 0 to para 9. Most patients (83%) did not have any previous history of miscarriages whereas 7.62% had previous one abortion and 5.71% had previous 2 abortions, 3 had preterm labour and 4 patients had previous caesarean section [11].

Maximum number of patients (76%) gave first birth at age between 15-25 years out of which 36% were between 21-25 years of age. The mean age was  $21.8 \pm 3.87$  years and the median age was 21 years [12].

Maximum number of patients had last delivery between 10-20 years back with 32% delivered 11-15 years back. Only 2 patients had delivered within last 5 years. The mean years were  $16.3 \pm 6.8$  and median was 15 years back.

### Conclusion

Epidemiologic studies on age at menarche in relation to uterine fibroid have shown an inverse association. The mean age was  $12.4 \pm 1.29$  and the median age was 12 years. On the basis of our current state of knowledge, we can only speculate upon the initiators of this common condition. Future research efforts may provide a better understanding, however, of the causes and mechanisms of uterine fibroid tumorigenesis. Insights resulting from elucidation of the basic biology of these tumors might then be successfully translated into preventative strategies that will reduce the incidence and/or morbidity of this disease.

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